# CD86 (B7-2) Monoclonal Antibody (IT2.2), NovaFluor™ Yellow 755, eBioscience™

| Product Details | |
|---|---|
| Size | 100 Tests |
| Species Reactivity | Human |
| Host/Isotype | Mouse / IgG2b, kappa |
| Class | Monoclonal |
| Type | Antibody |
| Clone | IT2.2 |
| Conjugate | NovaFluor™ Yellow 755 |
| Excitation/Emission Max | 551/755 nm |
| Form | Liquid |
| Concentration | 0.2 µg/Test |
| Purification | Affinity chromatography |
| Storage buffer | PBS, pH 7.2 |
| Contains | 0.09% sodium azide |
| Storage conditions | 4° C, store in dark, DO NOT FREEZE! |

| Applications | Tested Dilution | Publications |
|---|---|---|
| Flow Cytometry (Flow) | 5 µL (0.2 µg)/test | - |

## Product Specific Information

Description: The IT2.2 monoclonal antibody reacts with human CD86, an ~80 kDa surface receptor also known as B7-2. CD86 and CD80 are members of the B7 family of costimulatory molecules. CD86 is expressed at low levels on B cells, macrophages, and dendritic cells and is upregulated on B cells through a variety of surface stimuli including the BCR complex, CD40 and some cytokine receptors. In addition to CD80 (B7-1), CD86 is a counter-receptor for the T cell surface molecules CD28 and CD152 (CTLA-4). The interaction of CD86 with its ligands plays a critical role in T-B crosstalk, T cell costimulation, autoantibody production and Th2-mediated Ig production. The kinetics of upregulation of CD86 upon stimulation supports its major contribution during the primary phase of an immune response.

Each product contains 1 vial of NovaFluor conjugate and 1 vial of CellBlox Plus Blocking Buffer .

Applications Reported: The IT2.2 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This IT2.2 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.2 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells /test.

NovaFluor dyes are not compatible with DNA intercalating viability dyes. Do not use viability dyes such as propidium iodide, 7-actinomycin D (7-AAD) and DAPI. Invitrogen LIVE/DEAD Fixable Dead Cell stains are recommended for use with NovaFluor dyes.

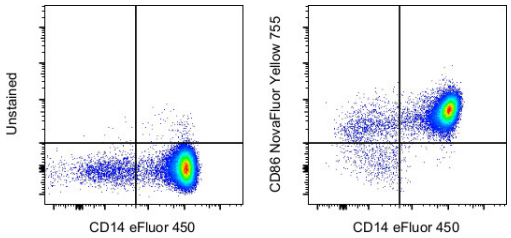
This NovaFluor conjugate has been updated to ship with CellBlox Plus Blocking Buffer (Cat. No. (C001T06F01)). This buffer contains formulation improvements over CellBlox. CellBlox Plus Blocking Buffer is required for optimal staining with NovaFluor conjugates and should be used in all experiments where NovaFluor conjugates are used. Whenever possible, we recommend adding CellBlox Plus Blocking Buffer to antibody cocktails/master mixes prior to combining with cells. Add 5 µL per sample

(regardless of the number of NovaFluors in your panel) to use the antibody cocktail as intended. For single-color controls, use 5 µL of CellBlox Blocking Buffer per 100 µL of cell sample containing 10^3 to 10^8 cells.

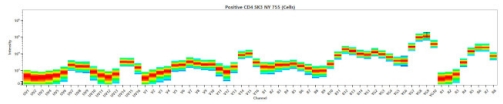
NovaFluor conjugates are based on Phiton™ technology utilizing novel nucleic acid dye structures that allow for engineered fluorescent signatures with consideration for spillover and spread impacts. Learn more

Excitation: 552 nm; Emission: 690 nm; Laser: 561 nm (Yellow) Laser

## Product Images For CD86 (B7-2) Monoclonal Antibody (IT2.2), NovaFluor™ Yellow 755, eBioscience™




**CD86 (B7-2) Antibody (H021T03Y08-A) in Flow**
Normal human peripheral blood cells were unstained (left) or stained with CD86 Monoclonal Antibody, NovaFluor Yellow 755 (right). All cells were co-stained with CD14 Monoclonal Antibody, eFluor 450 (Product # 48-0149-42). Total viable cells in the monocyte gate were used for analysis, as determined by LIVE/DEAD Blue (Product # L34962). Data was acquired on a 5-laser Cytek Aurora and unmixed with autofluorescence extraction.



**CD86 (B7-2) Antibody (H021T03Y08-A) in Flow**
Spectral signature for NovaFluor Yellow 755 collected on a 5-laser Cytek Aurora Full Spectrum flow cytometer using Cytek assay settings. Human peripheral blood mononuclear cells were stained with anti-human CD4 (SK3) and signatures displayed following gating on the lymphocyte population.